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Preliminary Review: Pending Energy Efficiency Legislation in India

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Trip Purpose

The Government of India (GOI) Ministry of Power (MOP) is putting forth energy efficiency legislation entitled , "The Energy Conservation Bill, 1998." As a part of its on-going support to the GOI under the EMCAT program, USAID requested IRG to collect information on the status and content of the legislation. This trip report provides a record of that effort, as well as preliminary comments on the legislation.

At the time of the trip, January 23-31, the Bill was in the final stages of review within the MOP, and has apparently been approved by the Cabinet, but not yet considered by Parliament, where it can either be passed or referred to committee. Interviews conducted during the trip revealed little opposition to the Bill, and it was generally expected that the Bill would find easy approval in the Parliament. The only uncertainty regarding the legislation was related to timing, as elections are now scheduled in India and there will be a change in government.

Although not the focus of this trip, it should be noted that two related bills are concurrently making their way through the legislative process; the first is "The Electricity Regulatory Commissions Bill, 1998", and the second is a bill for the privatization of the electric transmission system. The former has already been approved by the Cabinet and is pending before the Parliament. The latter is now being revived after being referred out of the Parliament without action in the 1996/97 timeframe.

This trip report continues with a preliminary review of the Bill, then presents recommendations for next steps, and concludes with a listing of contacts made during the trip.

Preliminary Review

Meetings were held during the trip with various government and industry representatives to collect information and perspectives on the pending legislation. This section of the trip report presents preliminary and summary-level comments on the Bill.

Changes from Earlier Draft Bill

During the fall of 1997, the Federation of Indian Chambers of Commerce & Industry (FICCI) prepared a background paper and workshop towards energy conservation law which presented the salient features of what is now "The Energy Conservation Bill, 1998." The Bill as it is written today retains many of the salient features originally proposed, with certain notable changes. Principal among these is an increased focus in the Bill on a single theme: the creation of the Bureau of Energy Efficiency (BEE). Importantly, the Bill establishes only a Centre BEE, and not state-level BEEs as originally proposed. The mandatory establishment of energy efficiency standards and labeling of electrical devices, along with compulsory energy audits, remain focuses of the Bill. While still mentioned, the language regarding the incorporation of energy efficiency into building codes is relaxed from the legislation as presented in the earlier FICCI document.

Broad Scope but Few Details

The scope of the Bill is very broad, encompassing several major areas of energy efficiency, but addressing none in detail. The 15 page Bill is contrasted, for example, with the US Energy Policy and Conservation Act which, in 175 pages, spells out in detail what measures will be targeted, how the programs will be implemented, and what funds will be appropriated. The main concern relative to the broad scope and lack and detail of the Indian Bill is that considerable leeway exists in the drafting and approval of rules and regulations, and in the design and implementation of programs under the law. Because it is loosely written, the effectiveness of the law can not be ensured, and the programs implemented may or may not carry a strong relation to the intent of the law. The essence of the Bill is the creation of the BEE, and the identification of two energy efficiency target areas; standards and labeling and industrial energy audits. The BEE will have the power to designate energy consumers as targets for its energy use norms and audits, however at the same time the Bill allows the Central or State Government to exempt any designated consumer from the "operation of all or any of the provisions of this Act." In sum, the Bill is broad yet lacks in detail, and its ultimate effectiveness will rest largely on the BEE; its interpretation of the intent of the law and its ability to win Central and State Government support for its enforcement. There is surpassingly little concern from industry associations about the bill; the broad nature of the bill and resulting expectations about the Government's ability to implement may be the reason for the lack of opposition. While the Bill is certainly better than none at all, it is believed that a more focused and detailed energy conservation act would ultimately be more effective than the pending legislation.

Supply-Side not a Focus

Although the Bill can be considered overly broad in that it touches upon several areas of energy efficiency without fully exploring any of them, it at the same time only mentions in passing what is currently one of the most energy wasteful sectors of the Indian economy: the supply-side industry. Specifically, huge opportunities for efficiency exist in the supply and distribution of electricity. Examples range from low plant factors and efficiencies at the generation level to tremendously wasteful pricing and metering practices at the distribution level. There is probably no single greater energy efficiency potential than in the removal of pricing distortions in the Indian electric utility sector. It is hypocritical to target consumer efficiency gains while ignoring the vast supply-side inefficiencies. Strong arguments can be developed for targeting the supply-side, both from the savings opportunity and program implementation perspectives. A sampling of current government and private sector supply-side efficiency initiatives in India confirms that workable solutions can be designed and implemented. The supply and distribution of electricity should be explicitly mentioned and detailed as an energy efficiency target area in the Bill.

Mandatory Standards and Labeling can be Effective

In order to be effective, standards for energy use and labeling of electrical equipment and appliances need to be mandatory. The Bill does call for the mandatory compliance with energy norms, and this is may be one of the most practical and workable components of the legislation. Considerable USAID technical assistance is already underway in the research, design and development of labeling, and if an equally comprehensive effort is undertaken on the targeting of electrical devices, the standards and labeling program should achieve energy efficiency gains. The Bureau of Indian Standards (BIS) has infrastructure, technical capability and testing laboratories that BEE must work with and not duplicate. At the same time the BIS standards are currently

below international norms and must be elevated if the standards and labeling program is to achieve real energy efficiency gains. This program is likely to be effective and should remain a focus of the Bill.

Mandatory Industrial Energy Audits not Workable

It is important to separate technical from practical efficiency opportunity, and while significant technical potential for industrial energy efficiency exists, mandatory audits are not a practical method for achieving that potential. Industrial energy efficiency will only occur in a large way when it can be integrated into normal business planning practices and the cost of the investment to industry provides an attractive return. Unless these underlying economic realities exist, industry will find ways around mandatory controls. Government intervention directly into the investment decisions of private industry rarely succeeds anywhere in the world, and the proposed mandatory audit program has little chance of becoming an exception. A far more effective approach to increasing industrial sector energy efficiency would be structuring a financing program to provide below market funds for modernization and energy efficiency improvements. Working with industrial energy consumers in such a way (that makes good business sense for industry) will leverage more successes than would mandatory audits. The power vested through the Bill in BEE to mandate energy audits, enforce and penalize could likely, within the Indian context, result in a misuse of government authority. A mandatory energy audit scheme carries inherent problems in any country, and India would be no exception. In fact, with the size of the country and the lack of government infrastructure to carry out such a program, the problems associated with mandatory audits would be exasperated in India. Mandatory audits should be excluded from the Bill, in favor of targeting a more reasonable industrial energy efficiency focus: the development of an energy auditor training and certification program, standards for performing audits, and a finance program for encouraging industry to participate.

Strengthen Building Codes

While energy norms in building codes are slow to show results, the long-term impact of comprehensive energy efficient building codes, with a sustained information, inspection and fine program, can be very significant. The obstacles in India with respect to such an effort will center around the higher construction costs of energy efficiency and transparency, if the codes were to be mandatory, in inspection and fines. Nevertheless, the research and development of workable codes for India is certainly a government role, and one in which the BEE can be effective coordinating with trade associations and helping to establish new standards and practices. Energy efficient building codes should be strengthened in India, and reference to them should remain a part of the Bill.

Lack of Definition of Funding Mechanism

The Bill establishes a Central Energy Conservation Fund, which will depend upon an appropriation from Parliament that is not fixed in the bill. The Fund is evidently designed as an operating fund for BEE, and also possibly as a future channel for funneling international donor funds for energy efficiency in India. In order to avoid the potential problems associated with unfixed and uncertain funding, the Bill should provide for a dedicated fund along with the mechanism for generating the moneys. As envisioned here, this fund would be used for more than the BEE operating budget, as it might be narrowly defined, and would include covering the implementation of national standards and labeling campaigns and financing industrial energy

efficiency. A logical funding mechanism would be a cess on electricity consumption, the amount of which would be targeted after final determination of which programs the Bill will encompass and thoughtful analysis of an appropriate budget. Therefore the Bill should specifically identify an electricity cess as the funding mechanism for the Centre Energy Conservation Fund.

Importance of Structure of BEE

Given the broad nature of the Bill and lack of detail, the importance of properly structuring the BEE is paramount. This begins with the drafting of workable rules and regulations, which will among other objectives, define the role of the BEE. It needs to be made clear, for example, how the BEE and BIS will avoid duplication. This work is a logical area for technical assistance from USAID, and should include the development of initial workplans and budgets, institutional and staff development, and implementation plans. It will be critical that the BEE targets niche markets and pilot projects, ensuring success on a small scale before tackling larger programs. The BEE must avoid attempting to establish rules, standards and programs across too many sectors of the economy, without the ability to effectively monitor and control any of them. Rules and standards with respect to energy efficiency already exist, for example, in government procurement, but the program is not comprehensive and lacks monitoring and enforcement. As a result the regulations are routinely circumvented. The experience of the Pollution Control Boards, which have grown into large bureaucracies over the years but have been less than effective in controlling pollution, is another example that should be avoided. Extensive technical assistance by USAID should be offered in the drafting of rules and regulations, and in the structuring of the BEE.

Next Steps

There are two areas where USAID and IRG could provide valuable input with regard to the Bill. First, a formal review of the proposed legislation could be performed, incorporating the input of various experts in the energy efficiency field. Specifically, areas of expertise consulted should include standards and labeling, industrial energy efficiency, and international energy efficiency law. The review could be packaged as a brief white paper (5-10 pages), and submitted for consideration by the MOP as the Bill is finalized and sent on to the Cabinet and Parliament.

A second area, and one that would be considerably larger in scope, would be providing support to the MOP in the drafting and promulgation of rules and regulation once the Bill is passed, and in the formation of the BEE. Because the Bill is written in very general terms, significant leeway exists for crafting an effective energy efficiency program through intelligent rules and regulations and practical design of the BEE. Due to the nature of the legislative process in India, it may be that USAID and IRG can affect a greater impact in implementation than can be achieved via comments on the legislation. Terms of reference for supporting the implementation phase would include, but not be limited to, the following:

- Drafting and promulgation of rules and regulations.
- Structure and formation of BEE.
- Creation of funding mechanism for BEE.
- Development of initial BEE organizational, staffing, budget, and workplans.

- Institution building and staff development for BEE.
- Development of guidelines for creation and funding of state enforcement capability.
- Development of initial state-level organizational, staffing, and enforcement plans.

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